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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,541	03/17/2004	Lalit Kumar Wadhwa	52078/DAP/L500	3712
23363 7590 02/21/2007 CHRISTIE, PARKER & HALE, LLP PO BOX 7068 PASADENA, CA 91109-7068			EXAMINER SACKEY, EBENEZER O	
			ART UNIT	PAPER NUMBER
			1624	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/21/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/802,541

Applicant(s)

WADHWA ET AL.

Examiner

EBENEZER SACKEY

Art Unit

1624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/20/04</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This is in response to applicant's response filed on 11/15/06.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

### ***Information Disclosure Statement***

Receipt of the Information Disclosure Statement filed on 09/20/04 is acknowledged and has been entered into the file. A signed copy of the 1449 is attached herewith.

### ***Response to Restriction***

Applicant's election with traverse of Group I, claims 1-11 in the reply filed on 11/15/06 is acknowledged. The traversal is on the ground(s) that claim 12 is a multiply dependent claim which starts with formula (2), compound made by any of claims 1-11 i.e., Group I. This is not found persuasive because contrary to applicant's assertion, compound of formula (2) is not made by any of claims 1-11. Rather, formula (2) is one

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of the starting compounds of claim 1. Additionally, different final products and different reactants are involved in attaining the final products between Group I and Group II.

Accordingly, claim 12 is withdrawn from further consideration by the Examiner, 37 CFR 1.142(b), as being drawn to non-elected invention.

The requirement is still deemed proper and is therefore made FINAL.

### **Claim Rejections - 35 U.S.C. § 103**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

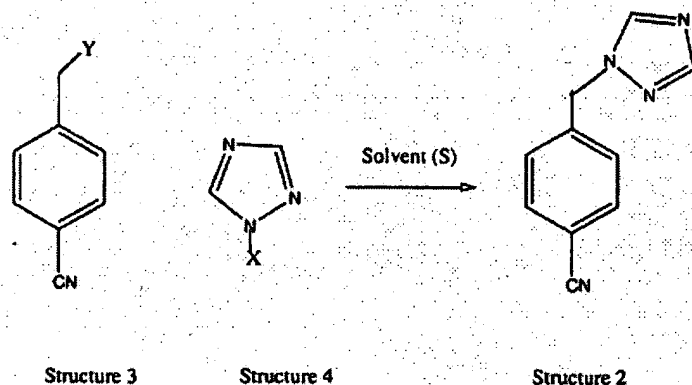
2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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3. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowman et al., (U.S. Patent number 5,473,078).

Applicants claim a process for preparing 4-(1H-1,2,4-triazol-1-ylmethyl)benzonitrile of formula (2), comprising reacting a salt of 1,2,4-triazole of formula (4) with alpha-halo substituted tolunitrile of formula (3) in the presence of a suitable solvent, wherein the reaction is carried out by charging in the solvent followed by addition of formula (4) at a reaction temperature of 25 to 30°C, adding a solution of formula (3) in the solvent at 10°C; stirring for 2 hours; adding demineralized water and extracting with dichloromethane; distilling out the organic layer, then crystallizing with a crystallizing agent to obtain the desired product of structural formula (2).



#### Determination of the scope and content of the prior art (MPEP §2141.01)

Bowman et al., disclose a process for preparing compounds of structural formula (2) and derivatives thereof, which comprises reacting alpha-bromo-4-tolunitrile with 1,2,4-triazole in a mixture of chloroform and acetonitrile, with subsequent elution with chloroform/isopropanol to obtain the final product, which is compound of structural formula (2). See the entire reference. The reference is replete with various methods of preparing the final product and various derivatives, see especially column 2 Example 2, column 22, Example 9, column 26 Example 20, column 27 Examples 24 and 25 and Example 27.

**Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)**

Bowman et al., differs from the instant process in that the reference is silent on the reaction temperature. However, an obviousness analysis requires that the prior art both suggest the claimed subject matter and reveal a reasonable expectation of success to one reasonably skilled in the art. *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ 2d 1438, 1442 (Fed. Cir. 1991). Note the reaction conditions of example 1; page 6 is similar to Examples 24 and 25 cited in the reference. Hence, this difference is not considered a patentable distinction and is thus, considered *prima facie* obvious absent a showing of unexpected results and/or properties. Additionally, there is no indication by way of evidence or otherwise in the specification that discloses the significance of the temperature range as claimed herein.

The claimed temperature range is an obvious modification available to one of ordinary skill in the art or well within the purview of the skilled artisan. Temperature ranges are merely optimization of variables, which are not patentable absent unexpected result due to these ranges or variables, and hence may be a difference in kind, and not merely in degree from that of the prior art. Note *In re Aller*, 105 USPQ 233, (1955). Also see *In re Boesch*, 205 USPQ, 215, (1980). The reference processes and the instant process are essentially the same because each process results in essentially the same final product(s). Thus, a slight difference in temperature, if any, may serve to differentiate the process from a rejection under 35 U.S.C. 102, but does not serve to remove the relied upon reference from a rejection under 35 U.S.C. 103. Note that the current process solvents i.e., tetrahydrofuran and dimethylformamide and crystallizing ethers and toluene (agents) are all taught by the reference. See the cited Examples above. With respect to claim 11, Bowman teaches

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the preparation of a positional isomer, that is 4,4'-[1H-1,3,4-triazol-1-ylmethylene]bisbenzotrile instead of the claimed 1,2,4- triazol-1-ylmethylene]bisbenzotrile compound. See Example 20.

**Finding of prima facie obviousness---rational and motivation (MPEP §2142-2143)**

Thus, at the time of filing this application, one of ordinary skill in the art would have been motivated to prepare 4-(1H-1,2,4-triazol-1-ylmethyl)benzotrile of formula (2) and 4,4'-[1H-1,2,4-triazol-1-ylmethylene]bisbenzotrile of claim 11 with a reasonable expectation that the requisite reactants, which have been known to produce the said compounds would result in producing the said compounds. Accordingly, the instantly claimed process would therefore have been suggested to one of ordinary skill in the art absent a showing of unobvious or unexpected results.

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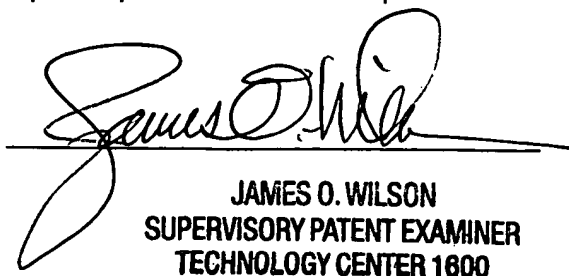
Any inquiry concerning this communication or earlier communications from the examiner should be directed to E. Sackey whose telephone number is (571) 272-0704.

The examiner can normally be reached on Monday-Friday from 7:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson, can be reached on (571) 272-0661. The fax phone number for this Group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1600.

EOS



JAMES O. WILSON  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1800

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February 10, 2007

James O. Wilson  
Supervisory Patent Examiner  
Art Unit 1624, Group 1600  
Technology Center 1